The **combelow** package

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Abstract

Standard LaTeX doesn't have the commands necessary to typeset some "secondary" diacritic marks used in some European languages. Romanian and Latvian have some letters with a *comma below* (aka comma accent). Up to now, LaTeX users approximated it with the *cedilla* (¸). From now on they have a proper comma below (').

1 Introduction

Once I had to typeset a flyer in Romanian. The flyer text had a word containing a 'ț'. To my big surprise and disappointment, LaTeX wasn't able to produce that glyph with a specific command, and I then approximated it with a cedilla (after reading chapter 40 of [1]). After asking some Romanians, they told me the flyer was ok, but those answers didn't persuade me: every Romanian newspapers and magazines had a comma below Ts and Ss, not a cedilla.

I decided to read Unicode books and documents [3, 4], and discovered that ş and ţ are Turkish strokes. Romanian would rather have the so-called *comma below* (a preferred form for cedilla). I also discovered that Latvian has some other letters with a comma below: g, k, l, n and r. Being 'g' a descending letter, its comma below becomes a *turned comma above* (ġ).

I thought that using utf8x encoding would allow me to typeset those letters, and their corresponding uppercase versions, once typed with a Unicode editor. I was wrong, and a real command was needed.

You can find a more in-depth description of the whole work in [2].

2 Usage

After including the package into your document (`\usepackage{combelow}`), you're provided with the command `\cb` that typesets its argument with the proper comma. Table 1 summarizes commands and results.

Command	Result
\cb g	g̦
\cb k	k̦
\cb l	l̦
\cb n	n̦
\cb r	r̦
\cb s	ș
\cb t	ț

Table 1: Examples of comma below-ed letters

3 Properties and known issues

A lot of Romanian printed matter show comma below-ed letters with a comma below slightly smaller than the actual font size. The package isn't able yet to manage a comma below less than the current font size.

If you want to put the comma accent below a two or more bytes Unicode character, you have to surround it with braces, just as you would do with other standard accents.

The biggest drawback is that the package doesn't allow hyphenation and loses kerning information too.

4 The code

```
1  \NeedsTeXFormat{LaTeX2e}
2  \ProvidesPackage{combelow}[2009/11/10 v0.99e comma below
       command]
3  \def\@commafont{\check@mathfonts
4      \fontsize\sf@size\z@\selectfont}
5  \DeclareRobustCommand{\cb}[1]{{%
6  \setbox\z@\hbox{#1}%
7  \ifdim\dp\z@<.1\ht\z@\ooalign{\unhbox\z@\crcr\hidewidth\
       lower.4ex\hbox{\@commafont,}\hidewidth}%
8  \else\ooalign{\unhbox\z@\crcr\hidewidth\raise.5ex\hbox{\
       @commafont'}\hidewidth}%
9  \fi}}%
10 \endinput
```

That's all: it stacks a comma (typeset in a smaller font) under a character without descendant (with no depth), while stacks an open single quote over a descending character (with a significant depth, since some Times fonts have no descendant, while being deeper than 0).

References

[1] Johannes Braams. Babel, a multilingual package for use with LaTeX's standard document classes. 2006. `http://www.ctan.org`.

[2] Gianluca Pignalberi. combelow: abbasso i segni diacritici di serie B. *Ars-TeXnica*, (8), October 2009.

[3] Unicode Consortium. Code charts, 2009. `http://www.unicode.org/charts`.

[4] Wikipedia. Cedilla, 2009. `http://en.wikipedia.org/wiki/Cedilla`.

A   Changes

2009/04/21 v0.1

- Initial version, not released. Could only typeset g, k, l, n, r, s and t with comma below, and the corresponding uppercase letters.

2009/04/30 v0.2

- Not released. Could typeset every not descending letters with comma below, but only g among descending letters.

2009/08/23 v0.99a, b, c, d

- Can typeset all letters with comma below, recognizing descendents and positioning the comma according to them (wrong turned comma above for italics and slanted characters in 0.99a; wrong vertical position in 0.99c). Since all of these versions are contemporary, I've just released 0.99d.

2009/10/19 v0.99d bug fix

- Fixed a problem with fonts like Times. Thanks to Enrico Gregorio.

2009/11/10 v0.99e

- Now the comma is finally smaller than the current font. Thanks to Enrico Gregorio for providing me with the necessary code.